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MAR 26 2001
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
TECHNOLOGY CENTER 2000

PATENT

Re: Attorney Docket No. 1009.004CIP

In re application of: Mark R. Allen

Serial No.: 09/339,616 ✓
Filed: June 24, 1999 ✓

Group Art Unit: 2821
Examiner: Tuyet Vo
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#15/1001
JRM
32001

For: Preferred Embodiment to LED Light String

DECLARATION OF DAVID R. ALLEN
SUBMITTED PURSUANT TO 37 C.F.R. §1.132

I, David R. Allen, hereby declare:

Background of Declarant

1. I am President of Fiber Optic Designs, Inc., 704 Floral Vale Boulevard, Yardley, PA 19067. For the past 3 years, I have been involved in the research, development and marketing of LED light strings..

2. Fiber Optic Designs was incorporated January 1998 to develop lighting and light-related products to be used in the home and industry. Fiber Optic Designs has been marketing the Forever Bright line of LED light strings, which is an embodiment of the invention claimed in the above-referenced patent application, starting in 1999 and again after the Forever Bright line received UL approval on March 29, 2000.

3. I am intimately familiar with the Forever Bright line of LED light strings and the competition in the market for decorative light strings in which the Forever Bright line competes.

As President, I have met with numerous industry leaders, manufacturers and distributors of decorative light strings, including LED light strings, and have reviewed volumes of information on the market. I also continue to keep close track of developments in decorative light strings and have done so for 3 years.

Commercial Success of the Forever Bright line

A Long-Felt Need Has Existed

4. The only LED light strings that existed prior to the Forever Bright line required a transformer or other power conditioning circuitry, which reduced brightness and prohibited outdoor use. Prior to the Forever Bright line, no one in the industry had heard of a decorative LED light string, powered by AC, that did not require power conditioning circuitry, such as a transformer. See **Exhibit A**, which is a letter from Andrew Boschetto, President of International Marketing Corp. International Marketing Corp.'s 37 sales representatives are employed in 15 agencies with showrooms in New York, Chicago, Atlanta, Dallas, and Los Angeles and represent major Christmas lighting manufacturers throughout the country. It has been Mr. Boschetto's business for the past 24 years to be aware of any new product related to decorative light strings.

5. The Forever Bright line of LED light strings removes the power conditioning circuitry, enabling the light string to be used safely outdoors. This feature of the Forever Bright line has drawn attention from some of the most prominent companies in the world. For example, I received an email from the engineering division of the *Walt Disney Company* on February 2, 2000, stating "I am very interested in the concept of LED Christmas lights for permanent outdoor installations." I also received an email from *Disneyland's Resort Enhancement* division stating

they are "very interested" in learning more about the Forever Bright line of LED light strings. The Marine Division of the *3M Corporation* has also shown strong interest in using Applicant's LED light strings on cruise ships, due to the ability to use the light strings outdoors under AC power.

6. Industries such as theme parks and cruise lines are intrigued by the Forever Bright line because it provides stable, safe, and bright LED light strings, powered by AC, that can be used for extended periods of time in permanent outdoor installations with little or no maintenance required.

7. *Distributors* in the consumer market for LED light strings have also been attracted to the Forever Bright line due to the ability to safely use the light string outdoors, under AC power. Evidence of the strong commercial interest in the Forever Bright line is attached as **Exhibit B**, and includes an article from Hardware & Home Centre Magazine dated July/August 1999, the March 20, 2000 edition of HFN, which is a weekly newspaper of home products retailing, and Selling Christmas Decorations 2000, which is targeted to distributors of Christmas decorations. All of these articles demonstrate the substantial interest the Forever Bright line has created upon its introduction to the marketplace. Also, as shown in the attachment to the Selling Christmas Decorations 2000 article, the product has generated 33 inquiries from *distributors* of Christmas decorations, which accounts for a significant share of the Christmas decoration market.

8. Thus, for many years, there has been a long-felt want and unsupplied need in the highly-competitive field of decorative light strings for an AC-powered LED light string that eliminated all power conditioning circuitry to permit outdoor use. Because the features of the

Forever Bright line have met this need, the Forever Bright line of LED light strings has enjoyed substantial commercial success since its introduction and is expected to continue to do so.

Wide Acceptance Is Due To Characteristics Of The Forever Bright Line

9. The Forever Bright line has been widely accepted in the industry because it has characteristics that the decorative light string market has been seeking for years. The success of the Forever Bright line comes from its ability to be operatively stable in an outdoor environment due to the elimination of power conditioning circuitry, such as a resistor or transformer.

10. Although the design of the Forever Bright line is very simple and straightforward, in my 3 years of experience in the decorative light string market, and in speaking with people like Mr. Boschetto who have been in the business for almost a quarter of a century, I have not seen or heard of any other products that were currently or previously on the market when the Forever Bright line was introduced that eliminated the power conditioning circuitry from an LED light string to provide a safe, operatively stable light string for outdoor use.

Factors Supporting Commercial Success

11. In my opinion, the commercial success of the Forever Bright line of LED light strings has resulted from the elimination of the power conditioning circuitry, i.e., its success is primarily attributable to the unique features of the product. I base this belief on the absence of other external factors that might account for its success. For example, the Forever Bright line was not advertised in the first year of production. Inquiries concerning the Forever Bright line were spurred by word-of-mouth from retail buyers and by literature distributed to professional

and retail trade media announcing the invention of the product. At no time did the Forever Bright line have an advertising budget.

12. Given the lack of an advertising campaign for the Forever Bright line, the commercial success of the line occurred unusually quickly. Fiber Optic Designs received the following purchase orders, representing approximately \$1.5 million in sales within only 2-months following approval by Underwriters Laboratory in March 2000:¹

- | | | |
|----|--|-----------------|
| 1) | Sear's purchase order received | -- 130,000 sets |
| 2) | Boscov's purchase order received | -- 18,312 sets |
| 3) | Target purchase order received | -- 12,504 sets |
| 4) | American Sales purchase order received | -- 9,000 sets |
| 5) | LB International purchase orders received | -- 55,492 sets |
| 6) | Tru Serve Hardware purchase order received | -- 10,392 sets |
| 7) | Menard Home Centers purchase order received | -- 12,504 sets |
| 8) | Thirty-six (36) additional customers placed orders that are not included in this list. | |

There can be no doubt as to the tremendous commercial success and interest garnered by Fiber Optic Designs' Forever Bright line of LED light strings.

¹ UL tested this product as a "new and unusual" product. UL polled its offices worldwide and concluded that none of its employees had ever tested a product similar to the invention.

13. I wish to stress that in a highly-competitive industry where the need for outdoor LED light strings was recognized, the industry sought unsuccessfully for many years to develop a product with the characteristics claimed here.

Immediate Misappropriation by Others

14. The Examiner states in the last sentence of paragraph 2 of the Office Action that "applying the design without the resistor as suggested in massive production environment, this would mount up to a considerable saving in the production line." We appreciate the Examiner's frank acknowledgment that removal of the resistor provides a considerable commercial benefit to those in the market of selling LED light strings.

15. No one in the industry has taken advantage of this admitted commercial benefit until after the technology behind the Forever Bright line was disclosed. By copying this technology, others in the industry have been able to enjoy the admitted commercial benefit previously only enjoyed by Fiber Optic Designs.

16. Upon information and belief, I am aware of a number of instances where the Forever Bright line of LED light strings have been copied.

17. After the above-identified application was filed in the U.S. Patent and Trademark Office, I met with a Taiwan LED manufacturer February 1999 and disclosed the technology behind the Forever Bright line. Attending this meeting was a business associate of Mr. Joseph Huang of Kampiun Enterprise Co.

18. I then visited Taiwan from April 28, 1999 through May 5, 1999 to meet with light string manufacturers and teach them how to build LED light strings according to the above-

identified applicaiton. A prototype of the Forever Bright line was demonstrated and detailed assembly instructions were provided. This new and innovative approach to the design of LED light strings was well received. In fact, the Vice General Manager of one of the largest LED manufacturers in Taiwan (LedTech Electronics Corp.) commented to me that it is *impossible* to build a light string without the current limiting circuitry.

19. On April 29, 1999, I met with Mr. Huang who represents a number of light string manufacturers in Taiwan. I educated Mr Huang on how to manufacture stable LED light strings free from additional circuitry, such as a resistor or other power conditioning circuitry, according to above-identified application. A prototype of the Forever Bright line was also provided.

20. About one year after this disclosure, I learned that Mr. Huang, acting as a sales agent for an LED light string manufacturer (Excellence Optoelectronics Inc.), planned to release a "new design of LED lite set" at an electronic show in Taipei from October 9-12, 2000. **Exhibit C.** Excellence Optoelectronics, Inc had manufactured low-voltage LED light strings with power conditioning circuitry (i.e. built-in transformers) for 3 years prior to its announcement of the "new design". I received a set of the alleged "newly designed" LED light strings from the Taipei show, had them examined by the inventor, Dr. Mark R. Allen. Dr. Allen concluded that the light set was identical to the Forever Bright line and that it was built according to the teachings I revealed earlier to Mr. Huang in Taiwan. I also learned that prior to the show, in July 2000, Kampiun sold General Electric Corp. 10,000 sets of the "new design LED lite set". **Exhibit D.**

21. Subsequent to the disclosure of the technology behind the Forever Bright line of LED light strings, I learned of *numerous* other companies that began to produce and market the

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identical product, causing great harm to Fiber Optic Designs' ability to compete in the marketplace.

22. Thus, notwithstanding the great need for an LED light string that is powered by AC without power conditioning circuitry, and notwithstanding the constant quest in the industry for a solution to the problems associated with using a transformer-based LED light string outdoors, it was not until the inventors produced the Forever Bright line that the market place has responded so enthusiastically. In my opinion, and based on my experience, the commercial success enjoyed by the Forever Bright line occurred as a result of eliminating the power conditioning circuitry from the light string.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on FEBRUARY 26, 2001.



David R. Allen

President

Fiber Optic Designs, Inc.